MARKET DRIVING TO DEVELOP RABBIT MEAT PRODUCTS IN INDONESIA

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(Makalah masuk 19 Juni 2012 – Diterima 9 Agustus 2012)

ABSTRACT

Rabbit meat is a nutritional food containing high protein and low cholesterol, fat and sodium. Current research in rabbit production is aimed for developing production strategies to increase the nutritional and economic values of rabbit meat products as functional food. Nowadays, producing rabbit is a popular farming activity in many parts of Indonesia as a small and medium scale operation for food security and cash income. Rabbit farming is to produce meat, skin and hides, fur, organic fertilizers and pet or fancy animals. Consumption of rabbit meat is considered very low, due partly to low meat supply and inavailability of marketing. In some tourist areas, such as Lembang (West Java), Tawangmangu (Central Java), Sarangan and Batu (East Java) rabbit meat is a specific food. Attempt to create and drive rabbit markets will simultaneously increase meat production to fulfill the demand and meet economic scale of farming. Hence, this will give significant impact to the farmers' welfare. Availability of good quality meat, dissemination and diversification of meat products, production efficiency toward competitive price along with its proper marketing strategy will drive consumers' preferences to consume more rabbit meat. Market driving needs to be created in order to promote rabbit meat products by establishing food outlets. This program has been developed by a farmers group in Magelang, Central Java. During the period of 2006 – 2007 the food outlets had increased to 5 outlets, and in 2012 become 9 outlets. This market driving will also have an impact on changing orientation of rabbit farming from traditional to a small and medium economic scale that will influence the production efficiency.

Key words: Market driving, rabbit production, farmers group association

ABSTRAK

MENCIPTAKAN PASAR UNTUK PENGEMBANGAN PRODUK DAGING KELINCI DI INDONESIA

Daging kelinci merupakan makanan yang bergizi dengan kadar protein tinggi serta rendah kolesterol, lemak dan garam. Penelitian produksi kelinci saat ini mengarah pada pengembangan strategi untuk meningkatkan nilai gizi yang ekonomis, sehingga daging kelinci berperan sebagai *functional food*. Usaha kelinci merupakan kegiatan yang populer di beberapa wilayah di Indonesia dengan skala usaha kecil dan medium sebagai tambahan pendapatan dan ketahanan pangan rumahtangga peternak. Usaha ini menghasilkan daging, kulit dan bulu, pupuk organik dan hewan kesayangan. Suatu perubahan dari usaha untuk konsumsi sendiri sampai kepada usaha yang komersial telah terjadi di beberapa wilayah. Konsumsi daging kelinci yang masih relatif rendah disebabkan oleh rendahnya pasokan serta ketiadaan pasar. Di beberapa kawasan pariwisata, daging kelinci menjadi makanan kuliner yang khas, seperti di Lembang (Jawa Barat), Tawangmangu (Jawa Tengah), Sarangan dan Batu (Jawa Timur). Upaya untuk menciptakan pasar produk kelinci secara simultan mampu meningkatkan produksi daging yang dapat memenuhi kebutuhan pasar yang saat ini belum tercapai. Hal ini juga akan memenuhi skala usaha ekonomi dan dapat memberikan dampak positif terhadap kesejahteraan peternak. Ketersediaan daging berkualitas, diseminasi dan diversifikasi produk, efisiensi produksi menuju usaha yang berdayasaing diiringi dengan strategi pemasaran yang tepat dapat merubah preferensi konsumen untuk mengkonsumsi daging kelinci. Strategi menciptakan pasar sangat diperlukan guna mempopulerkan produk daging kelinci. Salah satu contohnya adalah pembangunan gerai kuliner berbasis daging kelinci yang sesuai dengan kultur setempat, seperti yang telah dikembangkan oleh kelompok peternak di sekitar Magelang. Selama periode 2006 – 2007, gerai makanan ini sudah berkembang sampai 5 buah dan pada tahun 2012 menjadi 9 buah. Menciptakan *outlet-outlet* sebagai strategi pemasaran juga akan berdampak terhadap perubahan orientasi berusaha, dari tradisional menuju ke usaha kecil dan medium yang berorientasi pada keuntungan yang pada akhirnya akan mempengaruhi efisiensi produksi usaha kelinci.

Key words: Menciptakan pasar, usaha kelinci, asosiasi peternak

INTRODUCTION

The recent growth of Indonesian economy has led to changes in lifestyle and people's dietary patterns to evolve in a more quality food consumption. Rabbit meat fits well with the current consumer demand for a low-fat meat, low sodium and low cholesterol levels. Current research in rabbit production is more focused to developing strategies aimed at further increasing the nutritional value of rabbit meat as a "functional food". PETRACCI *et al*. (2009) concluded that provision of n-3 essential fatty acids in human nutrition through meat consumption contribute to balance the n-6/n-3 polyunsaturated fatty acids ratio of today's consumer diet. This will preventing some correlated diseases such as hypercholesterolemia which mostly lead to heart attack and strokes.

In 2011, rabbit population in Indonesia has reached 915,140 head and spread out in 12 provinces (DITJEN PKH, 2011). This figure has increased 9.7% compared to that in the year of 2010 with the largest population in Java (52%), followed by Sumatra. In general practices, rabbit farming aims at meat consumption, skin and hides, fur, organic fertilizers and pet or fancy animals, which requires only small investment and small size of land to start with. These are among its advantages for micro and small scale operation of rabbit farming in the villages. Significant biological potentials of rabbit include high reproduction ability and grow faster under forage and/or by-products feeding (CHEEKE *et al*., 1987; FARRELL and RAHARJO, 1984; LUKEFAHR, 1990; 2004).

Promoting rabbit meat for consumption is considered relevant to complement with current healthy lifestyle. The meat has chemical composition which is more advantageous compared to others (Table 1). It is well known for its high protein, low cholesterol, fat and sodium content.

The government has intended to provide opportunities for the small farmers to participate in market driven initiatives to increase farmers income, among other by introducing and supporting rabbit farming since 1980's. However, the progress was not yet in line with farmers' anticipation of the problems facing such as high production cost and not readily available of the market yet. One of the unacceptable issues was the food habits which consider rabbit meat as an unusual dish to most of Indonesian people. This 'bunny syndrome' also occurs elsewhere which led people somewhat reluctance to consume rabbit meat (CHEEKE *et al*., 1987). Therefore, attempts or promotion to eliminate such impression should be encouraged. One attempt is through rabbit meat product diversification, such as frankfurters, burger, corned meat, meat ball, and others. The processed products will apparently increase economic value, especially when supplemented with ω-3 and ω-6 oil (RAHARJO, 2003). In addition, food processing, even a simple one, will provide more job opportunity for farmers in the villages.

The national livestock development within the global competitive era needs to be supported by the use of local resources. This in turn will minimize the production cost through the application of proper technology in a friendly environment for its sustainability. This approach is very relevant to the recently emerging rabbit farming for its production potential and its significant contribution to meat consumption. Rabbit meat as a functional, healthy and affordable food products along with its adaptation ability of rabbit to the tropic have led to some prospects in accelerating rabbit production. Availability of good quality of rabbit meat, dissemination of good and proper processing rabbit meat along with its competitive price will further drive consumers' demand. This will later on enhance the growth of rabbit meat market, and hence increase its contribution to national meat consumption.

Table 1. Comparison of nutritional content of various meats (/100 g meat)*

Source	Energy (cal)	Protein (g)	Cholesterol ** (mg)	Moisture (g)	Fat (g)	Sodium (mg)
Rabbit	160	21.0	53	70.0	8.0	40
Chicken	200	19.5	105	67.0	12.0	70
Beef	380	15.5	58	49.0	35.0	65
Sheep	345	15.0	74	53.0	31.0	75
Pork	330	15.0	63	54.5	29.5	70

Source: *LEBAS *et al*. (1986) *in* RAHARJO (2003); **CHAN *et al*. (1995)

MARKETING STRATEGIES

Small-medium scale operation

MONGIOVI (2004) has shown that the rabbit industry lacks a structured market system which is common to most agricultural enterprises. Consequently, rabbit producers must develop a market before beginning the production, since a well-planned marketing strategy is essential for a successful agribusiness. Once market is identified, the size and type of potential operation can be determined. In addition, raising rabbit for meat production must include several consideration, among others availability of processing facilities, market requirements, transportation cost and potential buyers.

Rabbits are marketed with different types of product, for example, carcass meat and its processed products, fryers, breeding stock and/or fancy/pet animals. There is also small demand for fur that has fantastic economic value. However, no available published report yet until today on the selling and buying of rabbits across the provinces in Indonesia, but it was reported a supply shortage (Table 2). Rabbits are mostly sold within the provinces and in some regions along with its tourist areas, such as in Lembang (West Java), Tawangmangu (Central Java), Sarangan or Batu (East Java) and Brastagi (North Sumatera). In 2005, some 1000 heads per week at 4 – 5 week-old pet/fancy rabbits were sold in Lembang (SUTISNA, 2005), which increased two year later to 7000 – 10,000 head (DASE, 2007, pers. comm.) Rather unfortunate, however, that rabbit raising for meat production is constrained to high mortality rate after weaning (> 50 %), which stimulate farmers to sell the rabbits at 4 – 5 week-old for fancy.

Java is known of having a tremendeous growth in rabbit population. This is a result of initial development to provide meat or nutrition to low income families through establishing farmer groups for rabbit farming on a household base and to form a cooperative. These groups carry out business activities, such as saving-lending money, marketing fancy rabbits, processing manure to produce organic fertilizer, processing rabbit meat and producing pellet feeds. The required working capital and investment were obtained from contribution of the members, or from saving-lending unit and partly from the support of local or central government.

Rabbits were marketed generally as fancy/pet rabbit or as meat, with the average of carcass weight of 0.9 kg. Market for pet is mainly sold within the market place, while that of rabbit meat is mainly in tourist areas. Marketing can also be done independently either directly to the farmers or through the groups or cooperative. The local government facilitates market information through website, exhibition and exposition and "rabbit corner" within the animal market area. Developing rabbit farming cooperatives is considered important to guarantee markets of the output. QIN (2010) reported that rabbit farming cooperatives may have a goal to unite the dispersed rabbit breeders to improve the ability to meet market demand where the product are sold and finally increase farmers' income. Although rabbit farming cooperatives is a newly introduced in China, about 15 years ago, it has driven the rabbit production toward market changes. Different type of rabbit cooperatives have led into different market strategies according to the organizational structure and operational management. On the growing development of Chinese economy, the support from the government is obvious on this matter.

RAHARJO (2009) stated that small and medium scale rabbit operations are suitable for farmers in Indonesia, which fit into requirements of rural farming activity. Rabbit can be raised in a small scale operation (5 – 15 does per household) and turn into a medium scale (50 – 100 does) based on feed resources available. Sumanto *et al*. (2009) characterized rabbit farming into 4 scales of operation per household, i.e. (i) micro scale (< 30 does), (ii) small scale (30 – 100 does), (iii) medium scale (100 – 500 does), and (iv) large scale (> 500 does). These characteristics will be in line with the purpose of raising rabbit from

Table 2. Price, supply and demand of rabbit in some areas

Parameters	Lembang (West Java)	Magelang (Central Java)	Brastagi (North Sumatera)
Price of carcass (US$/kg)	3.33	3.11 – 3.55	5.55
Price of weaned pet (US$/head)	1.1 – 3.3	2.78 – 8.33	1.67 – 44.4
Price of adult pet (US$/head)	16.67 – 88.89	11.1 – 44.4	66.7 – 111.1
Supply of meat (kg/ month)	4000 – 4500	600 – 800	250 – 300
Supply of pet (head/month)	7,000 – 10,000	3,000	3,000 – 4,000
Demand for meat (kg/month)	6,000 – 6,400	2,500 – 3,000	500
Demand for weaned pet, meat-type and adult pet head/month)	12,000 – 15,000	7,500	7,000

Source: RAHARJO (2008)

household orientation toward commercial business. The higher scale of business is more likely to be more efficient and easy to be achieved to make rabbit farming into industrialization in the region.

Feeds are entirely depending on availability of forages or agricultural by products. A small and medium scale of rabbit operation tend to orient the farm for commercial purpose, despite lack of capital, limited knowledge of technical skills, little market access, poor bargaining power and lack of cooperation among farmers. Farmers' cooperatives had been built to fit the need of rabbit farmers into a unity formed. Therefore, strategy for developing rabbit must include: (i) cooperatives base farmers' group, covering at least 40% of the household in the area are farmers' raising rabbit, (ii) commercial-oriented investors based on shares and profit sharing, (iii) availability of breeding farms, (iv) training of farmers, (v) strengthening management of the organization, (vi) creating market and promotion, (vii) building up processing unit, (viii) own-rabbit meat consumption, and (ix) government support. The concept is later called "Kampung Kelinci" or rabbit village, the area whose farmers are interested in developing rabbit farming.

Economic liability of rabbit farming

Rabbit farming of small and medium scale operation may improve farmers welfare through increase of income and nutritional status of the family household. An economic analysis has been estimated by RAHARJO (2008) based on 100 does and 10 bucks for meat type rabbit without forages (Table 3). It shown that a R/C ratio of 1.45 has been achieved by selling rabbit every 2 months, which implied there was additional gross income of 0.45 by increasing 1 unit of its cost. This figure is considered as a good business activity and may end up with higher income for other several types of rabbit selling.

Further, RAHARJO (2008) also estimated gross margin analysis of several rabbit type selling based on 2 months operation period. This was summarized in Table 4 under the assumption of total production cost to feed cost was 100/80 and 100/70, respectively for fully premixed diet and 50% diet plus forages. It can be shown that highest profit could be obtained from selling weaned rabbit as pet animal and raised them in semi intensive system where forages were part of the feeding. However, market of pet animals could sometime be easier to become saturated and therefore program to develop meat rabbit should be enhanced.

Table 3. Economic analysis of meat type rabbit without forage feeding (IDR 000)

Items	Number	Price/unit	Total
Animal			
Female	100		
Male	10		
Feed cost			
Doe (dry): 100 h x 0,3 x 60 d x 0,1 kg	180	2	360
Pregnant: 100 h x 0,7 (CR) x 25 d x 0,12 kg	210	2	420
Lactating: 100 h x 0,7 x 35 d x 0,2 kg	490	2	980
Males: 10 h x 60 d x 0.12 kg	72	2	144
Weanings: 336 h x 90 d x 0.075 kg	2,268	2	4,536
Total feed cost	3,220	2	6,440
Total cost production (100/80 of feed cost)			8,050
Revenue			
Gross income			
Carcass: 336 h x 2.7 x 0.5	453.6	24	10,886.4
Fur: 336 h x 0.8 (used) x 1.2 ft^2	320	2.5	800
Total gross income			11,686.4
Profit			3,636.4
R/C			1.45

Source: RAHARJO (2008)

Table 4. Gross margin analysis of rabbit type selling for 2 months period

Rabbit type selling	Feed	Litter (size)	Market price (IDR 000)	Profit (IDR 000)	B/C
Meat	Full premixed diet	6	24/kg carcass	3,363	1.45
	50% diet + forage	6	2.5/ft2 fur	4,600	1.74
Meat + fur	Full premixed diet	5	24/kg carcass	6,834	1.79
	50% diet + forage	5	2.5/ft2 fur	8,640	2.40
Pet – sold at weaning	Full premixed diet	5	15/head	2,575	2.19
	50% diet + forage	5	15/head	3,395	3.55
Pet – sold at 3 mo old	Full premixed diet	5	20/head	2,962	1.88
	50% diet + forage	5	20/head	4,155	2.94
Laboratory	Full premixed diet	6	35/kg live-weight	21,540	3.10

Source: RAHARJO (2008)

Rabbit farming in Magelang, Central Java

The district of Magelang is the second most population rabbit in the province of Central Java. It is estimated that the population reached to 33,508 head in 2010 and has increased at a rate of 17.7% during the period of 2006 – 2010 (DINAS PETERNAKAN DAN PERIKANAN KABUPATEN MAGELANG, 2011). The farmers have been raising rabbit since 1980's with its initial objective to increase nutritional value for the people, especially those who live in the village. The program provided does to individual farmers, but the program was terminated due to high mortality. However, during the last four years, rabbit farming in this area has started to re-emerged rapidly, which driven by the incidence of the spread of High Pathogenic Avian Influenza (HPAI) disease on poultry. Some poultry farmers closed down the farms and switch to other commodities, including rabbit, especially those who are involved in small and medium household scale operation. Almost 40% of the land use was dedicated toward agriculture farming, while 60% of the people run business related to agriculture. This will yield into abundance agricultural by-products that are available and can be used as feed, including for rabbit.

In 2002, rabbit farming in Magelang was dominated by local and semi-local rabbits. By 2004, the farmers started to raise exotic breeds such as Flemish Giant, New Zealand White, English Spot, Flemish Giant, Rex, and others. However, the uncontrolled cross breeding of the exotic breeds have caused unclear production purposes, whether as final stock for meat production or for breeding stock. The condition was a result of inconsistency of the steering and supervising of the program from the institution involved. This in turn will lead to some problems, such as: (i) lack of farmers' knowledge on good and proper rabbit breeding practices, (ii) unavailability of good quality breeding stock, and (iii) traditional farm management setting that is far from commercial business orientation.

Although development of rabbit farming has shown a significant impact to the community, it is still managed traditionally and considered not as a main job. Nevertheless, few farmers take this operation as a main occupation. WIDODO (2005) indicated that most rabbit farmers had raised on the average of 25 – 50 does per barn, some raised about 10 does and few had raised up to 100 does. A survey carried out in March 2006 by the Office for Information on Agricultural and Extension Services of Magelang collaborated with the Association of Rabbit Farming Group indicated total rabbit population of 22.4 thousand head were raised by 1800 farmers (PRIYANTI *et al*., 2007). The dynamics of its population is further shown in Table 5 on rabbit program development based on local resources and adaptive agro ecosystems. Eventhough not all sub districts reported population and composition of animals, it indicated that the distribution along with growth of population is considered well adapted. The updated information on total of rabbit population in 2011 has been reported in which sub district of Ngablak has the highest population among others (DINAS PETERNAKAN DAN PERIKANAN KABUPATEN MAGELANG, 2011).

Most rabbits that have been sold in the market consist of 20% local, 15% semi-local and 65% as breeding stock, weanlings and culled rabbit. Some of the sub district markets that have tremendeous weekly demand include: (i) Muntilan (300 – 600 head), (ii) Sanggarah in Pakis (100 head), and (iii) markets around city of Magelang, such as down town of Magelang, Bandongan, and Kaliangkrik could sell weanlings (50 – 100 head). Most of the carcasses and culled rabbits were purchased by the culinary food traders from other nearby big city, such as Yogyakarta. These traders have grown quite well through establishing fancy and or exotic outlets or

Table 5. Rabbit population dynamics in Magelang District in March 2006 and updated information in 2011

Subdistrict	Number of farmers	Population				Total[a)]	Total population in 2011[b)]
		Doe		Weaned			
		Male	Female	Male	Female		
Dukun	18	25	88	68	116	297	725
Mungkid	118	305	580	824	1,546	3,255	455
Muntilan	15	191	690	219	568	1,668	3,211
Mertoyudan	26	164	880	105	632	1,781	432
Srumbung	16	126	139	278	225	768	1,092
Sawangan	110	138	459	270	339	1,206	943
Bandongan	112	2	15	8	n.a.	25	1,009
Secang	126	195	719	181	620	1,715	152
Borobudur	35	68	225	155	567	1,015	895
Ngluwar	125	50	622	n.a.	n.a.	1,577	2,390
Salaman	99	95	131	26	36	288	126
Pakis	178	156	543	572	756	2,027	287
Windusari	21	22	83	n.a.	n.a.	250	508
Kajoran	265	n.a.	n.a.	n.a.	n.a.	1,138	938
Candimulyo	10	n.a.	n.a.	n.a.	n.a.	68	1,606
Tempuran	45	n.a.	n.a.	n.a.	n.a.	368	481
Grabag	217	n.a.	n.a.	n.a.	n.a.	1,720	608
Tegalrejo	60	n.a.	n.a.	n.a.	n.a.	858	2,736
Ngablak	92	163	362	432	546	1,503	4,514
Salam	83	45	162	69	176	452	3,271
Kaliangkrik	67	52	130	120	168	470	1,096
Total	1,838	n.a.	n.a.	n.a.	n.a.	22,399	27,475

n.a.: No data available

source: [a)]KIPPK (2006)
[b)]DINAS PETERNAKAN DAN PERIKANAN, KABUPATEN MAGELANG (2011)

traditional small shops. The demand for rabbit varied from 5 to 30 head/day within these outlets, and increased by 25% during the weekend. This indicated that at least there was a market for 170 head/day of rabbit meat for 16 culinary food traders. The increased in demand for rabbit meat have not been fulfilled yet by farmers group, which implies market opportunity to be responded by on farm activity. High potential for feed resources and enthusiasm of members of rabbit farmers' towards business orientation, could make Magelang as a rabbit production center in Central Java province.

Rabbit Farmer's Association

Developing rabbit markets will remain the main issue for rabbit production. This becomes important agenda for rabbit farmers association as an official forum, with legal act decree and consists of groups of farmers, with some 60 active members representing 16 out of 21 counties in Magelang (WIDODO, 2005). Each association in a county has representative members, who accommodate farmers' aspiration conveyed through regular meeting and discussion, sharing knowledge and discussing problems in raising rabbit. In sub districts of Ngablak, for example, there is a unity group of rabbit farmers from surroundings village with a total population of 2075 head in 2009 (DINAS PETERNAKAN DAN PERIKANAN KABUPATEN MAGELANG, 2009). One of rabbit farmers' group, Ngudi Rahayu from the Pandean village, was awarded as the best rabbit farming group that has been conducted by the District Office of Magelang in 2009. Collaborated with other rabbit farmers' group, Sumber Makmur in the village of Sumberejo, the group could

be a benchmark of other farmers to follow in rabbit farming. The business includes breeding stock, communal barn, waste processing, feed formulation, organic farming and cooperative.

One of the action programs supported by the local government is establishing agribusiness center for rabbit farming. Core of the center is to produce various food products and dishes utilizing rabbit meat. A captive market was created by the local government through providing snack or meals using rabbit meat during their weekly or monthly regular meetings. This is also one of the strategies to promote rabbit meat to be consumed by community and a campaign what so called 'rabbit day'. Business involved in this center include: (i) culinary special rabbit food in local specific menus: satay, tongseng, rica-rica, meat ball, nuggets, sausages, and shredded meat, (ii) center of researchable areas for on farm to off farm rabbit production, (iii) center for buying and selling live rabbit market place in Magelang, (iv) outlets for selling rabbit carcasses and meat, and (v) service and information center for rabbit farming.

Table 6 presents culinary outlets and small shops of rabbit food were spread out started in 2006 to 2012. This mean that was none in 2005, but has been started in the area which is close to Borobudur temple as a tourist area. These outlets have been funded individually by farmers with the main target to meet demand for rabbit meat. Through a direct quick observation to rabbit outlets and personal communication with the head of rabbit farmers' group, it was reported that there are 9 rabbit food outlets surrounding Magelang and the group of farmer keeps on working to enlarge this market. These outlets considered to a semi permanent building, not including temporary itinerant rabbit road seller food stall during the nights in the center and bustle areas. However, number of outlets have ever reached to 13 outlets in 2010, unfortunately some of them were bankrupt due to the impact of Merapi volcano eruption.

Table 6. The presence of culinary rabbit food outlets in Magelang

Name of outlet	Sub district	Year
Warung kelinci Milik Kita I	Bojong, Mungkid	2006
Warung kelinci Milik Kita II	Sawitan, Mungkid	2006
Warung kelinci Ngluwar	Ngluwar, Ngluwar	2006
Warung kelinci Milik Kita III	Jumoyo, Salam	2007
Warung kelinci Wonoboyo	Muntilan, Muntilan	2007
Warung kelinci Secang	Secang, Magelang	2008
Warung kelinci Bayeman	Bayeman, Magelang	2008
Warung kelinci Taman Agung	Muntilan, Muntilan	2011
Warung kelinci Pojok	Ngablak, Magelang	2012

Rabbit meat is also considered a small animal resource food, such as chickens, so that fit into children's likelihood. As the initial plan for developing rabbit production to fulfill household family nutrition including farmers, a strategy that improves child and family nutrition along with promoting rural economic development could be applicable to impoverished the local community. Nowadays, it is well known as a nutribusiness strategy that underpin the essential to have animal source foods in the diets of young children. An example to this matter, in a rural community of Kenya was engaging women in the formulation and processing by supplementation of rabbit meat to the diets of school children program (MILLS *et al*., 2007). The food products manufactured by the cooperative can be adapted to locally available ingredients and cultural considerations of the foods offered to children.

CONCLUSION AND RECOMMENDATION

Rabbit farming has a good prospect to be developed as an agribusiness strategy for a small and or medium scale operation. Building a group of farmers into an association and a cooperative is able to elevate rabbit production to meet market changes.

Recommendation on a certain institutional model of rabbit farming as a meat-producing body involving marketing aspects targeting at developing market outlets for various rabbit products was achieved. Developing rabbit food outlets are essential to drive its production, such as a case in Magelang, a self-funded 'shop-restaurant' called 'Warung Kita', was built from contribution of the group members. This 'shop-restaurant" sells various dishes and processed products from rabbit meat. This outlet could become an example for other farmer group in marketing rabbit products, from slaughter to 'ready to eat' products. Other activities, such as production and use of complete feed by farmers through the association group was started from socializing of feed potential, feed formulation to the association of rabbit farmers in Magelang. This activity was not only to provide more knowledge to the farmers, but also to get feedback from farmers on shortages of feed and to increase production to meet market demand. Intensification on management of institutional model and development of rabbit market, improvement of model for meat-type rabbit farming, including its networking and wider market, model for development of farmers group, pattern for, revolving scheme, cooperation model, development of complete agribusiness from the breeding stock to product processing and marketing, and strengthening manpower resources could be the further assessment that is interested to be explored.

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